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PATENT

IN THE CLAIMS:

The currently pending claims are as follows:

1-17. (canceled)

18. (previously presented) An expansion lance assembly for an expansion

of a hollow profile by the exertion of a fluidic high internal pressure comprising:

a rod-shaped seal carrier detachably connected to a carrier holder and

having a seal arrangement including at least two sealing rings each having an

outside diameter which is larger than an inside diameter of the hollow profile

and at least one spacer sleeve situated between the at least two sealing rings and

arranged on the seal carrier, the seal carrier having an axial inflow bore

connected to a fluid high-pressure source and at least one transverse bore

branching off from the axial inflow bore and the seal arrangement having an

axial end support situated remote from the carrier holder;

wherein each of the sealing rings includes a first component and a second

component;

the first component including a low-abrasion high-pressure-resistant

elastomer ring which bears against a circumferential surface of the seal carrier

such that it is elastically deformable axially by high internal pressure from the

pressure source,

the second component including a high-pressure-resistant supporting ring

which is radially elastic and axially has a high tensile strength,

wherein the elastomer ring includes, on a side facing away from a nearest

transverse bore, a peripheral shoulder on which the supporting ring is mounted,

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the peripheral shoulder being enclosed by the supporting ring, and the seal

carrier and an axial stop being arranged on the peripheral shoulder.

19. (previously presented) The expansion lance according to Claim 18,

wherein the elastomer ring includes a hydrolysis-resistant thermoplastic

polyurethane elastomer.

20. (previously presented) The expansion lance according to Claim 18,

wherein the supporting ring includes one of a linear aromatic polymer and a

polyoxymethylene thermoplastic.

21. (previously presented) The expansion lance according to Claim 18,

wherein the axial stop is formed by a spacer sleeve which is arranged with a

snug fit on the seal carrier.

22. (previously presented) The expansion lance according to Claim 18,

wherein the spacer sleeve is axially supported on a side facing away from the

sealing ring against a positioning stop axially fixed on the seal carrier.

23. (previously presented) The expansion lance according to Claim 22,

wherein the positioning stop includes two ring halves which are accommodated

in an annular groove of the seal carrier and form a full ring, the two ring halves

protruding radially out from the annular groove and being held together at their

circumference by an elastomeric ring.

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24. (previously presented) The expansion lance according to Claim 18,

wherein the elastomer ring includes a peripheral sealing lip which protrudes

radially outwardly from an outer circumference of the elastomer ring and

includes a larger outside diameter than the inside diameter of the hollow profile

to be expanded.

25. (previously presented) The expansion lance according to Claim 24,

wherein the radially outwardly protruding sealing lips of two sealing rings are

inclined towards each other.

26. (previously presented) The expansion lance according to Claim 24,

wherein the sealing lip of a trailing sealing ring of two sealing rings relative to a

pushing-in direction of the expansion lance, includes on a side of the sealing ring

ahead of it a peripherally chamfered radially outward-facing bevel.

27. (previously presented) The expansion lance according to Claim 24,

wherein the elastomer ring has on a side facing away from the supporting ring a

circumferential groove, which is open in an axial direction and the upper flank of

which forms an underside of the sealing lip.

28. (previously presented) The expansion lance according to Claim 27,

wherein the groove is between 2 and 2.3 mm deep.

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29. (previously presented) The expansion lance according to Claim 27, wherein the groove is of a notch-shaped form, and a groove base is rounded.

30. (previously presented) The expansion lance according to Claim 18,

wherein the elastomer ring has a peripheral sealing lip which protrudes radially

inwards from an inner circumference of the elastomer ring and bears against the

seal carrier with a prestress.

31. (previously presented) The expansion lance according to Claim 30,

wherein the radially inwardly protruding sealing lips of two sealing rings are

inclined towards each other.

32. (previously presented) The expansion lance according to Claim 30,

wherein the sealing lip of a trailing sealing ring of two sealing rings relative to a

pushing-in direction of the expansion lance, includes on a side of the sealing ring

ahead of it, a peripherally chamfered radially inward-facing bevel.

33. (previously presented) The expansion lance according to Claim 30,

wherein a flexible stripping ring, which has a greater diameter than the inside

diameter of the hollow profile, is attached onto the seal carrier, ahead of the

sealing arrangement relative to a pushing-in direction of the expansion lance.

34. (previously presented) The expansion lance according to Claim 18,

wherein the seal carrier includes a hardened and tempered steel.